

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: : Date: 10/19/2001

TRIPATHI, ET AL. : Attorney Docket No.: CR00302M

Serial No.: : Art Unit: Art Unit

Filing Date: 10/19/2001 : Examiner: Unassigned

For: ADAPTIVE TURBO DECISION FEEDBACK EQUALIZATION METHOD AND  
DEVICE

10/046444  
10/19/01  
10/19/01

INFORMATION DISCLOSURE STATEMENT (IDS)

Assistant Commissioner For Patents  
Washington, D.C. 20231

SIR:

In accordance with 37 C.F.R. §1.56 and in compliance with 37 C.F.R. §§1.97 and 1.98, the references listed on attached Form PTO/SB/08 and/or subsequently identified herein, are being submitted herewith for consideration by the United States Patent and Trademark Office.

I. COPIES

- a. ☒ A legible copy of (i) each U.S. and foreign patents; (ii) each publication or that portion which caused it to be listed; and (iii) all other information or that portion which caused it to be listed, is included herewith.
- b. ☐ Any patents, publications or other information which are listed on PTO/SB/08 which are not enclosed herewith were previously cited by or submitted to the PTO in one of the following applications which has been relied upon for an earlier filing date under 35 U.S.C. §120:

U.S. Serial Number

U.S. Filing Date

II. CONCISE EXPLANATION OF THE RELEVANCE (check at least one box)

- a. ☒ Except as may be indicated below in (b) of this section, all of the patents, publications or other information are in the English language (concise explanation not required).

- b. ☐ A concise explanation of the relevance of all patents, publications or other information listed that is not in the English language is as follows:
- c. ☐ The following additional information is provided for the Examiner's consideration:

III. ☐ CROSS REFERENCE TO RELATED APPLICATION(S)

The Examiner is advised that the following co-pending application(s) contain(s) subject matter that may be related to the present application. By bringing this (these) applications to the Examiner's attention, Applicant(s) does(do) not waive the confidentiality provisions of 35 U.S.C. §122.

Serial No.

Filing Date

Art Unit

**FEES**

IV. ☒ THIS IDS IS BEING FILED UNDER 37 C.F.R. §1.97(b): (check one box)

- a. ☐ within three months of the filing date of a national application (37 C.F.R. §1.97(b)(1)). No fee or statement is required.
- b. ☐ within three months of the date of entry of the national stage as set forth in § 1.491 in an international application (37 C.F.R. §1.97(b)(2)). No fee or statement is required.
- c. ☒ before the mailing date of a first Office Action on the merits (37 C.F.R. §1.97(b)(3)). No fee or statement is required.
- d. ☐ In the event that a first Office Action on the merits has been issued, please consider this IDS under 37 C.F.R. §1.97(c) and see the statement under 37 C.F.R. §1.97(e) provided below, or if no statement has been made, charge deposit account 13-4771 the fee set forth in 37 C.F.R. §1.17(p).

V. ☐ THIS IDS IS BEING FILED UNDER 37 C.F.R. §1.97(c): (check one box)

before the mailing date of either a Final Office Action under 37 C.F.R. §1.113 (See 37 C.F.R. §1.97(c)), or a Notice of Allowance under 37 C.F.R. §1.311 (See 37 C.F.R. §1.97(c)).

- a. ☐ No statement; therefore, charge deposit account 13-4771 the fee set forth in 37 C.F.R. §1.17(p).
- b. ☐ See the statement below. No fee is required.

VI. ☐ THIS IDS IS BEING FILED UNDER 37 C.F.R. §1.97(d):

on or before payment of the issue fee and is accompanied by the following:

- 1) a statement under 37 C.F.R. §1.97(e) as provided below;

- 2) Applicant(s) hereby a petition for consideration of this information disclosure statement; and
- 3) charge deposit account 13-4771 the petition fee set forth in §1.17(i).

VII. Statement under 37 C.F.R. §1.97(e) (check only one box, if applicable)

The undersigned hereby states that

- a. ☐ each item of information contained in the IDS was cited in a communication from a foreign Patent Office is a counterpart foreign application not more than three months prior to the filing of IDS; or
- b. ☐ no item of information contained in the IDS was cited in a communication from a foreign Patent Office in a counterpart foreign application, and to knowledge of the person signing the statement after making reasonable inquiry, no item of information contained in the IDS was known to any individual designated in 37 C.F.R. 1.56(c) more than three months prior to the filing of this statement, or
- c. ☐ some of the items of information contained in the IDS were cited in a communication from a foreign Patent Office. As to this information, the undersigned states that each item of information contained in the IDS was cited in a communication from a foreign Patent Office in a counterpart foreign application not more than three months prior to the filing of this IDS. As to the remaining information, the undersigned hereby states that no item of this remaining information contained in the IDS was cited in a communication from a foreign Patent Office in a counterpart foreign application or, to the knowledge of the person signing the statement after making reasonable inquiry, no item of information contained in the IDS was known to any individual designated in 37 C.F.R. 1.56(c) more than three months prior to the filing of this statement.

VIII. PAYMENT OF FEES

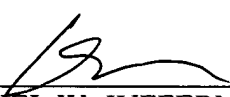
- ☐ A check in the amount of \_\_\_\_\_ is enclosed for the above-identified fee(s).
- ☐ Please charge Deposit Account No. 13-4772 in the amount of \$180.00 for the above-indicated fee(s).
- ☒ If Applicant has overlooked any additional fees, or if any overpayment has been made, the Commissioner is hereby authorized to credit or debit Deposit Account 13-4772.
- ☒ Two Copies of this paper are attached for Deposit Account charges and debits.

It is Applicants' opinion that the claims presently on file patently distinguish the present invention from each of these references. The above references are being cited only in the interests of candor and without any admission that they constitute statutory prior art or contain matter which anticipates the invention or which would render the same obvious, either singly or in a combination, to a person of ordinary skill in the art.

If the Examiner has any questions concerning this IDS, he/she is requested to contact the undersigned. If it is determined that this IDS has been filed under the wrong rule, the PTO is requested to consider this IDS under the proper rule (with a petition if necessary) and charge the appropriate fee to Deposit Account No. 13-4772.

Respectfully submitted,  
TRIPATHI, ET AL.

MOTOROLA, INC.  
Customer Number 22917

  
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DANIEL W. JUFFERNBRUCH  
ATTORNEY for Applicant(s)  
Reg. No. 33,122  
Tel. 847-538-3129

Enclosures: ☒ PTO/SB/08  
☒ References  
☐ Foreign Search Report  
☐ Other:

10/19/01

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Please type a plus sign (+) inside this box. FORM PTO/SB/08

Substitute for form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(use as many sheets as necessary)</i>				<i>Complete if Known</i>		
				Application Number		
				Filing Date		
				First Named Inventor		
				Group Art Unit		
				VINAYAK TRIPATHI		
				Examiner Name		
Sheet		2	of	2	Attorney Docket Number	
					CR00302M	

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		CARLO LUSCHI, MAGNUS SANDELL, PAUL STRAUCH, JIAN-JUN WU, COSTEL ILAS, PING-WENONG, ROMAIN BAERISWYL, FREDERIC BATTAGLIA, SPYROS KARAGEORGIS, RAN-HONG YAN; "Advanced Signal-Processing Algorithms for Energy-Efficient Wireless Communications"; IEEE, Vol. 88, No. 10, October 2000, pp. 1633-1650.	
		I. FIJALKOW, A. ROUMY, S. RONGER, D. PIREZ, P. VILA; "Improved Interference Cancellation for Turbo-Equalization"; IEEE, 2000, pp. 416-419.	
		CHRISTOPHE LAOT, ALAIN GLAVIEUX, AND JOEL LABAT; "Turbo Equalization: Adaptive Equalization and Channel Decoding Jointly Optimized"; IEEE Journal on Selected Areas in Communications, Vol. 19, No. 9, September 2001, pp. 1744-1752.	
		MICHAEL TUCHLER, RALF KOETTER, ANDREW SINGER; "Iterative Correction of ISI via Equalization and Decoding with Priors"; IEEE, ISIT 2000, Sorrento, Italy, June 25-30, 2000; pp. 100.	
		DAN RAPHAELI and YORAM ZARAI; "Combine turbo Equalization and Turbo Decoding"; IEEE Communications Letters, Vol. 2, No. 4, April 1998, pp. 107-109.	

Examiner Signature		Date Considered	
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation, if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> Applicant is to place a check mark here if English Language Translation is attached.